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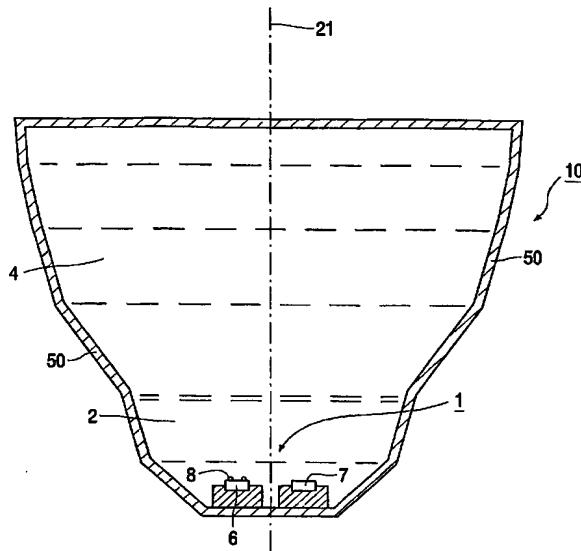
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(54) Title: COLOR-MIXING LIGHTING SYSTEM



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(57) Abstract: A color-mixing lighting system has a light-emitting diode (6, 7) emitting first visible light having a first peak wavelength in a first spectral range and has a fluorescent material (8) converting a portion of the first visible light into second visible light having a second peak wavelength in a second spectral range. The second visible light has a full width at half maximum (FWHM) of at least 50 nm. Preferably, the second visible light is red light, the second peak wavelength being in the range from 590 to 630 nm, preferably, in the range from 600 to 615 nm. Preferably, the lighting system comprises a further light-emitting diode (7) for emitting third visible light having a third peak wavelength in a third spectral range. The color-mixing lighting system according to the invention generates white light with a high color-rendering index and allows certain variations in the wavelength of the primaries.



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